

SITE: C. J. Martin
CITY: Nacogdoches, TX
TIER: 3
EPISODE NO.: 4028

NATIONAL DIOXIN STUDY

FINAL SITE REPORTS

FOR

TEXAS TIER 3 and TIER 6 SITES
(EPA Region VI)

Prepared under Clean Water Act Section 104(b)(3) Grant
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INTRODUCTION

The Texas Water Commission (TWC), Division of Field Operations collected soil samples from Tier 3 and Tier 6 sites in Texas for the U. S. Environmental Protection Agency's "National Dioxin Study". This study was conducted by the Texas Water Commission under Assistance Agreement, Assistance I.D. No. X-811961-01-0 and Assistance Amendment, Assistance I.D. No. X-811961-01-1. The statutory authority for this study is the Clean Water Act, as amended, Section 104 and the regulatory authority is found in 40 C.F.R. Part 30.

The Texas Water Commission's Tier 3 and Tier 6 sampling contract is under the direction of Mr. David Barker, Section Chief of the Emergency Response Unit of the Field Operations Division. Mr. Barker acted as the project manager for this contract and was assisted by staff members: Dr. Priscilla Seymour, Mr. Bill Hupp, Mr. Daniel McClellan, and District personnel.

The purpose of the "National Dioxin Study" is to determine the nature and extent of environmental contamination from 2,3,7,8-TCDD, the most toxic isomer of dioxin. Potentially contaminated sites were divided into seven categories or tiers. This study focused on Tier 3 and Tier 6, both tiers containing industrial facilities that formulated or produced pesticides. The Tier 3 sites consist of facilities and associated waste disposal sites where dioxin contaminated pesticides were formulated, particularly those facilities where 2,4,5-TCP and its derivatives were formulated or blended into pesticides (this process includes repackaging). The seven pesticides of concern are: 2,4,5-T, silvex, erbon, ronnel, hexachlorophene, isobac 20, and 2,4,5-TCP. Tier 6 sites consist of pesticide manufacturing facilities where improper quality control during production of certain organic chemicals (polyhalogenated phenols and ortho-halophenols) and pesticides (excepting those manufactured from 2,4,5-TCP) could have led to the formation of 2,3,7,8-TCDD.

Nationwide there were 583 Tier 3 sites and 60 Tier 6 sites. A statistically representative sample of these facilities was chosen for sampling. The results will be used to evaluate the potential for contamination across all sites and the percentage of other sites requiring further sampling and analysis.

In Tier 3, 99 sites were targeted for sampling nationwide: 50 were selected randomly from the FIFRA and TSCA Enforcement System (FATES) database of 258 facilities, a statistical sample of 6 was chosen from the 31 largest facilities (based on production), and 44 were statistically chosen based on EPA regional distribution from the remaining 227 facilities. An additional 49 sites nationwide were chosen by the EPA Regions as having a high likelihood of contamination. Of the 583 Tier 3 sites nationwide, 51 were in EPA Region VI. From these 51 sites, 6 were chosen for sampling. All six sites are in Texas. These sites are: Bes-Tex Insecticides Co., Inc. in San

Angelo, TX (silvex); C. J. Martin Co. in Nacogdoches, TX (ronnel); CSA, Limited in Houston, TX (ronnel); Drew Chemical Corp. in Houston, TX (2,4,5-TCP); National Chemsearch Corp.-Mohawk Labs Division in Irving, TX (2,4,5-T); and Velsicol Chemical Corp. in Beaumont, TX (2,4,5-T with Tier 6 chemicals: dichloropropranolide, dimethylamine dicamba, and dicamba).

In Tier 6, 60 facilities were identified from the SRI directory of chemical producers (1977-1982), the FATES database, Dioxins by Esposito, et. al. (EPA-600/2-80-197, November 1980), and EPA Regional recommendations. A group of 20 facilities was chosen as a statistical sample of the 60 facilities identified. Three of these sites are in EPA Region VI with two being located in Texas. The 2 Texas sites are: Chemall, Inc. in Groves, TX (pentachlorophenol) and Velsicol Chemical Corp. in Pasadena, TX (methyl parathion).

This report presents the findings from the sampling investigations conducted at the Tier 3 and Tier 6 sites in Texas by the Texas Water Commission for the U.S. Environmental Protection Agency. This report consists of a description of the sampling methodology used during this study and individual site reports for each site in Tier 3 and Tier 6. Each site report includes sections on the site description and background, a site map, the sampling investigation, the analytical results, and recommendations for further action. The appendices include sample point descriptions with sample points shown on site maps, tables of sample results, photographs of sample points, U.S.G.S. maps showing site location, and copies of the chain of custody documents and laboratory shipment records.

METHODS OF SAMPLING

Sample Selection

At all sites sampled in Tier 3 and Tier 6 in Texas by TWC, a targeted or directed approach was used as opposed to a random approach. Through reconnaissance investigations and file investigations, information was gathered on all sites of chemical throughput, from production to distribution. It was therefore possible to focus on areas within the sites most likely to be contaminated with dioxin. Specifically, these targeted areas included places where potential or known spills or leaks could have occurred and the associated drainage pathways from those areas. For example, typical areas chosen were loading docks, storage areas, warehouses, waste water ponds, storm water drainage areas and ditches, and waste disposal areas on site. This approach allowed concentration of sampling in those areas with potentially higher contamination. As the 2,3,7,8-TCDD dioxin isomer adheres to soil particles, erosion and accumulation points were also important.

For each site, a Site-Specific Sampling Plan was prepared as part of the Site-Specific Work Plan. Within this plan the methodology, sample point description, sample rationale, map indicating sample locations, number of samples chosen and quality assurance/quality control parameters were defined. Additional samples were included in the sampling plan for quality assurance/quality control. These included: 2 field blanks (one to spike with native 2,3,7,8-TCDD), 1 duplicate and 1 performance evaluation sample containing a known quantity of 2,3,7,8-TCDD. These samples were included in each batch of 24 samples. All sampling was conducted in accordance with the EPA's "Final Draft Report - Sampling Guidance Manual for the National Dioxin Study" (July 1984).

Sample Collection and Documentation

All sampling personnel wore EPA level C or D protective clothing during sampling. The sampling kits were provided through EPA Region VI by Versar, Inc. These kits consisted of tulip bulb planters, 1-quart wide-mouth glass jars with teflon liners in the lids, and required packing materials. From each sample point cores 4 inches deep were taken of the soil or sediment. If the soil was too hard for the bulb planter, a garden trowel was used to loosen the soil and then the bulb planter was used. The cores were placed on clean aluminum foil (to prevent cross contamination), twigs and stones were removed and then the soil was carefully placed into the sample jar to fill it at least half full. The lid was placed on the jar after checking that the teflon liner was in place. The jar was numbered, dated, recorded, and then photographed at the sample location. Time, date and sample number were marked either on a chalkboard or notebook and included in the sample photo for future reference.

Field data were filled out, a sample tag was attached to the jar, the jar was sealed with strapping tape, a numbered label was placed on the jar, and the chain-of-custody seal was applied. The field data forms required were: Contract Lab Program (CLP) Dioxin Shipment Record for soils and Sample Control Center Dioxin Shipment Record for water, sample tags (individually numbered), and chain-of-custody records. Samples were kept cool and in a dark or shaded place (boxes) until sampling was completed. Water samples taken were placed in a cooler on ice.

Sample Shipment

All samples were packaged in accordance with the U.S. Department of Transportation Exemption DOT-E 7909 - for the shipment of samples that may contain 2,3,7,8-TCDD. The sample shipping boxes were then labeled as required by the Department of Transportation and Federal Express. The samples were shipped by Federal Express Restricted Articles Service, Priority 1 (overnight delivery). All packages were received by the laboratories the day following shipment with no damage reported.

Sample Documentation

For each sample there is a chain-of-custody record, a dioxin shipment record, an assigned study number (beginning with "DF"), a sample tag, and a photograph of the sample at the sample site. Also available is a sample site map with sample description for each sample point. For documentation that was not affixed to the sample jar, copies of the records and photographs can be found in the appendices of this report.

TIER 3 SITE REPORTS

SITE REPORT

C. J. Martin Company (Tier 3) Nacogdoches, Texas Case #4028

Site Description and Background

C. J. Martin Company, located at 606 West Main Street in Nacogdoches, Texas (Lat. 31 deg. 37'00", Long. 94 deg. 40'00"), formulates and repackages a variety of pesticides and veterinarian products, mostly for agricultural use. The pesticide production and distribution area of the facility employs approximately 25 people and occupies approximately 1.2 acres of the 4.2 acre site.

The C. J. Martin Company was sent a Tier 3 questionnaire by the EPA Region VI office requesting information regarding that facility's history of the handling of seven pesticides manufactured from 2,4,5-TCP (potential dioxin precursors). C. J. Martin Company's response indicated that the only potential dioxin precursor associated with C. J. Martin Company was ronnel. From 1969 until 1983, a concentrated solution (67%) of ronnel was received by truck in 55-gallon drums (a total of approximately 29,237 pounds from 1969 through 1983). The product was formulated to a ronnel concentration of two to five percent. The formulations included cattle smears and an aerosol spray for use as a pesticide in warehouses and barns. Ronnel production has been inactive since 1983.

C. J. Martin Company indicated that no wastes were generated in reply to the EPA's information request letter. However, wastes associated with the Company's production of ronnel products included empty drums which were sold unrinsed to a Dallas-based drum reclaimer. Equipment rinse water and floor spills were stored in an above-ground waste water storage tank and until the late 1970's, this stored wastewater was frequently released into a drainage ditch that flowed into nearby Bonita Creek. Storage of the ronnel concentrate and production of its associated products were restricted to the north half of the Veterinary Medical Manufacturing Warehouse and the resultant wastes (waste water and empty drums) were normally stored in the open area between the Veterinary Medical Manufacturing Warehouse and the North Farm Supply Warehouse (see site map).

The C. J. Martin Company's history was verified from TWC files and interviews with company representatives as well as other state and local government agencies. Research indicated that the only government regulatory activity associated with the company is its registration with the Texas Water Commission as a small quantity industrial solid waste generator and transporter (Registration #31531). The review of the company's history also indicated no past record of environmentally threatening incidents (e.g. significant spills) nor worker injury related to the potential dioxin precursor compounds.

A very shallow water well exists on the facility site, but well log information is not available. However, well log data of other wells within an approximate 1 mile radius and the U.S. Department of Agriculture National Cooperative Soil Survey for the area soils indicates that the upper 6 inches consists of a deep, moderately well drained loamy soil and then becomes a stratified fine sandy loam to sandy clay loam to approximately 5 feet. Clayey sediments occur from 5 feet to approximately 30 feet below the surface. On-site observations indicated a very high clay content in the upper 6 inches of soil, very possibly due to filling during site construction.

Sampling Investigation

A reconnaissance inspection was performed on January 17, 1985 by Dan McClellan (TWC) and the sampling investigation was performed on March 19, 1985 by Dan McClellan and Priscilla Seymour (TWC). A major change observed at the site between the reconnaissance inspection and the sampling investigation was the placement and grading of approximately 1 to 2 feet of soil fill over most of the open processing and storage area between the Veterinary Medicine Manufacturing Warehouse and the North Farm Supply Warehouse (see additional comments in the "Sample Point Descriptions").

The C. J. Martin Company was selected for this study by the EPA Region VI office because of its large production volume of ronnel. Sample locations were chosen in accordance with the Draft Sampling Guidance Manual for the National Dioxin Study (February 27, 1984) and the Draft Quality Assurance and Work Plans for the Region VI segment of the National Dioxin Study (March 15, 1984). A directed or targeted approach was chosen to sample the facility as areas of potential contamination were identified through historical information and on-site inspection. In addition, the potentially contaminated areas were relatively limited in size.

Sampling was performed on March 19, 1985 between 9:00 a.m. and 2:00 p.m. under mostly cloudy skies with a slight drizzle beginning during the last hour of sampling. The temperature during sampling remained in the low to mid 60's F. Out of a total of 23 samples collected for analysis, 18 were soil or sediment samples collected from the surface to 4 inches deep, and 1 was a water sample taken from a shallow well on site. Four (4) samples were submitted for quality control assessment and included 1 duplicate soil sample, 2 blank samples (one of which to be spiked by the receiving laboratory), and 1 sample containing a known quantity of 2,3,7,8-TCDD.

A site-specific Health and Safety Plan was prepared prior to the sampling investigation and EPA level C and D protective clothing and equipment were utilized during sampling. All sampling personnel had received a complete physical examination within the previous year. No unusual hazards were anticipated nor encountered during the sampling investigation.

An EPA/State Community Relations Plan Checklist was also prepared prior to the sampling investigation. Mr. Billy Sims, Manager of Quality Control and Technical Services, was the site contact and was present periodically throughout the sampling. The State's role regarding community relations followed the normal state procedure of providing specific information about the project only upon request. If significant information regarding the results of this investigation becomes available, notification will be made according to the Community Relations Plan Checklist.

Analytical Results

Samples associated with the C. J. Martin Co. site were shipped to Laucks Testing Laboratories, Inc. in Seattle, Washington on March 20, 1985 in accordance with the EPA "Final Draft Report - Sampling Guidance Manual for the National Dioxin Study" (July 1984) and the requirements of the U.S. Department of Transportation and the Federal Express Corporation. The samples were received by the laboratory on March 21, 1985 and analyzed during the period April 13-19, 1985. Results of these analyses are included in Appendix A. The isomer 2,3,7,8-TCDD was not detected in any of the field samples collected at this site.

The analytical procedure of Laucks Testing Laboratories, Inc. was evaluated by the chief of the laboratory section at U.S. EPA Region VI Environmental Services, Houston Branch. The results of analysis were evaluated for data completeness, instrument tuning, chromatography quality, blank analysis, matrix spikes, duplicates, and analysis of surrogate recovery and the field blank. This evaluation determined that all of the results of analysis were acceptable.

Laucks Testing Laboratories encountered problems in preparing samples DF014212 and DF014219 for analysis because of the presence of oils. Upon the advice of the U.S. EPA Regional VI Environmental Services, Houston Branch, Carbopack cleanup prior to analysis was used to overcome the problem with oils. The lab was also advised to use dilution if necessary prior to analysis.

Several lab data reports were checked with this set of samples beyond the usual quality assurance review checks. The data system and instrument utilized, an HP 5970MS, provides an unfamiliar software output. More time is required to review the data because the spectra of the required ions are not readily overlayed to match spectra numbers or retention times. Additionally, no calculations were included with the set of data nor were any examples furnished by the lab.

Sample DF014215 was analyzed as the blank, sample DF014217 as the native spike, and sample DF014220 as the duplicate. All the methods of analysis for this set of samples were rated satisfactory by the U.S. EPA Region VI Environmental Services, Houston Branch. Sample DF014213 was analyzed as the performance evaluation sample with a reported value of 3.3 parts per billion

(ppb) 2,3,7,8-TCDD. The true value was 3.3 ppb indicating acceptability of the reported value.

The EPA is currently analyzing several of the samples from C.J. Martin for the dioxin isomers, PCDD and PCDF. The samples chosen were from areas where spills or spill runoff could have occurred. The samples included are: DF014201, DF014203, DF014204, DF014207, DF014211, DF014212, DF014214, DF014217, and DF014219.

Recommendations and Actions

No action is presently recommended for the C. J. Martin Co. site based on the results of this study as the isomer 2,3,7,8-TCDD was not detected in any of the samples.

SAMPLE RESULTS

C.J. MARTIN COMPANY

** THE MAPPER SYSTEM **

DATE 20-SEP-85 15:24:58 RIO 3 23 JUL 85 DIOXIN

DIOXIN STUDY RESULTS8000602

CASE	NUM	EPISODE	STA	TAG	SSC	LAB ID	TCOD	DET	DESCRIPTION	ALIQ	WT	MATRIX	TIME	STATION	LOCATION
	NUM		NUM	NUM	NUM	NUM					(G)				
2635	01A	6-00354	DF014223	2422	NO	0.10	FIELD					WATER	1303	WELL AT NE CRN OLD HULL HOUSE	
2635	01B	6-00353	DF014224	2422	NO	0.10	FIELD					WATER	1303	WELL AT NE CRN OLD HULL HOUSE	
4028	02	6-00331	DF014201	04	NO	0.10	FIELD	10.0	SOIL	1100	E OF FLOOR SUMP, NE OF VET MED W				
4028	03	6-00332	DF014202	05	NO	0.05	FIELD	10.0	SOIL	1104	E OF LOADING DOCK NE VET MED WRH				
4028	04	6-00333	DF014203	06	NO	0.02	FIELD	10.0	SOIL	1110	S OF LOADING DOCK NE VET MED WRH				
4028	05	6-00334	DF014204	07	NO	0.03	FIELD	10.2	SOIL	1027	30FT S & 3FT W, NW CRN N FM SUP W				
4028	06	6-00335	DF014205	08	NO	0.04	FIELD	10.0	SOIL	1034	40FT S & 7FT W, NW CRN N FM SUP W				
4028	07	6-00336	DF014206	09	NO	0.06	FIELD	10.0	SOIL	1038	59FT S & 5FT W, NW CRN N FM SUP W				
4028	08	6-00337	DF014207	010	NO	0.04	FIELD	10.0	SOIL	1044	74FT S, NW CRN N FM SUP WRHSE				
4028	09	6-00338	DF014208	011	NO	0.04	FIELD	10.1	SOIL	1233	83FT S & 19FT W, NW CRN N FM SP W				
4028	10	6-00339	DF014209	012	NO	0.04	FIELD	10.1	SOIL	1053	61FT S & 26FT W, NW CRN N FM SP W				
4028	11	6-00340	DF014210	013	NO	0.04	FIELD	10.3	SOIL	1145	3FT S OF SE CRN OF WW STOR TANK				
4028	12	6-00341	DF014211	014	NO	0.07	FIELD	10.4	SOIL	1148	10FT E MAIN STORM DRN, SE VET M W				
4028	13	6-00342	DF014212	015	NO	0.50	FIELD	10.0	SOIL	1140	STEPS SW CRN N FM SUP WRH AT DOCK				
4028	14	6-00343	DF014213	016	3.30	--	P.E.	10.0	P.E.	1341	(P.E.)				
4028	15	6-00344	DF014214	017	NO	0.30	FIELD	10.2	SOIL	1343	1ST LOADING DOCK S, NE CRN N FM SP W				
4028	16	6-00345	DF014215	018	NO	0.04	BLANK	10.0	SOIL	1355	(BLANK)				
4028	17	6-00346	DF014216	019	NO	0.05	FIELD	10.2	SOIL	1333	BONITA CREEK, 50FT DOWNSTR DRN PP				
4028	18	6-00347	DF014217	020	1.00	--	BLANK TO SPIKE	10.2	SOIL	1357	(BLANK TO SPIKE)				
4028	19	6-00348	DF014218	021	NO	0.07	FIELD	10.1	SOIL	1117	DITCH N OF PROP, 4FT W VET MED WRH				
4028	20	6-00349	DF014219	022	NO	0.5	FIELD	10.1	SOIL	1124	DITCH N OF PROP, 41FT E N FM SUP W				
4028	21	6-00350	DF014220	023	NO	0.5	DUPLICATE	10.1	SOIL	1127	(DUPLICATE OF 0.20)				
4028	22	6-00351	DF014221	024	NO	0.03	FIELD	10.3	SOIL	1347	DITCH N OF PROP, 30FT E N FM SUP W				
4028	23	6-00352	DF014222	025	NO	0.5	FIELD	10.2	SOIL	1352	OFFSITE, 75FT N OF NW CRN VET M W				

* SITE: C.J. MARTIN CO. SITE CONTACT: BILLY SIMS PHONE: 409/564-3711

* ADDRESS: 606 W. MAIN ST. NACOGDOCHES, TX 75961

* LAT: 31 36' 15" N LONG: 94 39' 00" W SAMPLE DATE: 3/19/85

* LAB: (12-23) LAUCKS TESTING LABS, INC. 940 S. HARNEY SEATTLE, WA 98108

* LAB: (11A6B) U.S. E.P.A. ERL-DULUTH 6209 CONGDON BLVD. DULUTH, MN 55804

* AIRBILL: 768189520, 768189704

* CHAIN OF CUSTODY: 6-8521, 6-8522, 6-8523, 6-3997, 6-3998, 6-3999, 6-4000

* NOTE ON LAB ID NUM: ALL SAMPLE NUMBERS FOR DF014201-DF014222 BEGIN WITH "79685"

* PPB SURROGATE ACCURACY: DF014201=102.7, DF014202=108.3, DF014203=102.5, DF014204=103, DF014205=102.9, DF014206=104.2, DF014207=107.3, DF014208=94.4, DF014209=91.5, DF014210=100.1, DF014211=105.9, DF014212=86.3, DF014213=93.1, DF014214=100.9,

* DF014215=93.2, DF014216=96.4, DF014217=96.4, DF014218=112.8, DF014219=98.8, DF014220=114.5, DF014221=99, DF014222=95.5,

* DF014223=--, DF014224=--

NATIONAL DIOXIN STUDY (TIER 3)

C. J. MARTIN CO.

★ 16, 18 & 23

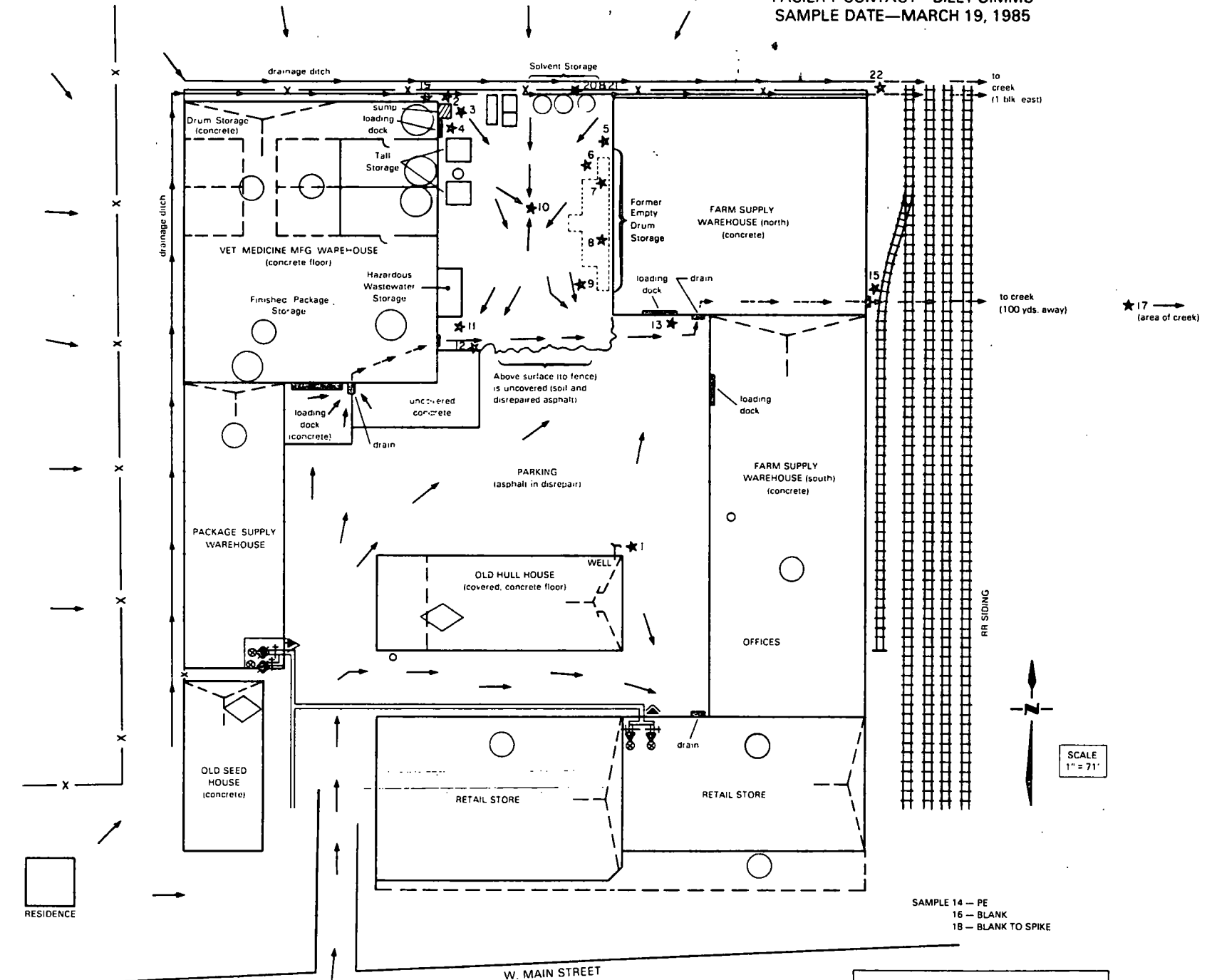
Unimproved Property

606 W. MAIN ST.

NACOGDOCHES, TEXAS

FACILITY CONTACT—BILLY SIMMS

SAMPLE DATE—MARCH 19, 1985



SAMPLE 14 — PE
16 — BLANK
18 — BLANK TO SPIKE

★ = SAMPLE POINT
→ = DRAINAGE FLOW
- - - = SUBMERGED DRAINAGE FLOW

TIER 3 SAMPLE POINT DESCRIPTIONS

SAMPLE POINT DESCRIPTIONS

C. J. Martin Company
Nacogdoches, Texas
Sampling Date - March 19, 1985

<u>Sample Number</u>	<u>Description</u>
1.	Groundwater sample from a shallow well at the northeast corner of the Old Hull House. Subsurface contamination resulting from former spills might be detected in the well water.
2.	Soil from 6 inches east of the floor drain sump located at the outside northeast corner of the Veterinary Medicine Manufacturing Warehouse (VMMW). Ronnel was formulated in this warehouse and spills could have occurred.
3.	Soil from 6 inches east of the loading dock located at the outside northeast corner of the VMMW. Spills of ronnel might have occurred during loading operations.
4.	Soil from 6 inches south of the loading dock located at the outside northeast corner of the VMMW.
5.	Soil from a former empty (unrinsed) drum storage area 30 feet south of the northwest corner of the North Farm Supply Warehouse and 3 feet west of the wall (6 inches of fill required displacement).
6.	Soil from former empty (unrinsed) drum storage area 40 feet south of the northwest corner of the North Farm Supply Warehouse and 7 feet west of the wall (10 inches of fill required displacement).
7.	Soil from former empty (unrinsed) drum storage area 59 feet south of the northwest corner of the North Farm Supply Warehouse and 5 feet west of the wall (6 inches of fill required displacement).
8.	Soil from former empty (unrinsed) drum storage area 74 feet south of the northwest corner of the North Farm Supply Warehouse and next to the wall (4 inches of fill required displacement).
9.	Soil from former empty (unrinsed) drum storage area 83 feet south of the northwest corner of the North Farm Supply Warehouse and 9 feet west of the wall (8 inches of fill required displacement).

**Sample
Number**

Description

10. Soil from stormwater drainage pool area near the center of the open process area between the VMMW and the North Farm Supply Warehouse. The sample was taken 61 feet south of the north-west corner of the North Farm Supply Warehouse and 26 feet west of the wall. (Runoff from spills might have accumulated here).
11. Soil from drainage around the waste-water storage tank, 3 feet south of the southeast corner of the tank and 10 feet east of the VMMW wall. (Runoff from the overflow of the waste-water storage tank would have accumulated here).
12. Soil from the open concrete drum storage pad, 10 feet east of the main storm drain opening near the southeast corner of the VMMW and 5 feet south of the open stormwater drainage ditch (this is where drainage from the storage pad would accumulate).
13. Soil from beneath the steps (second step up) at the southwest corner of the North Farm Supply Warehouse next to a loading dock and the open stormwater ditch. Sediment from this ditch accumulated under the steps.
14. (P/E sample).
15. Sediment from depression 2 feet east of the opening of the sub-surface stormwater ditch. This ditch exists on the east side of the North Farm Supply Warehouse beneath the first loading dock south of the northeast corner of this warehouse and drains most of the open process area.
16. (Blank).
17. Sediment from the north end of a deposition island in Bonita Creek 50 feet downstream of the stormwater drainage ditch out-fall from the site. This is approximately one block east of the site.
18. (Blank to spike).
19. Sediment from a depression in a presently nonflowing drainage ditch bordering the north side of the property 4 feet west of the north side of the VMMW. This ditch drains former loading area for ronnel at the northwest corner of the VMMW.
20. Sediment from a depression in the north side property drainage ditch 41 feet east of the northeast corner of the North Farm Supply Warehouse. Obvious spill stains exist. Ronnel loading area drains to this ditch.

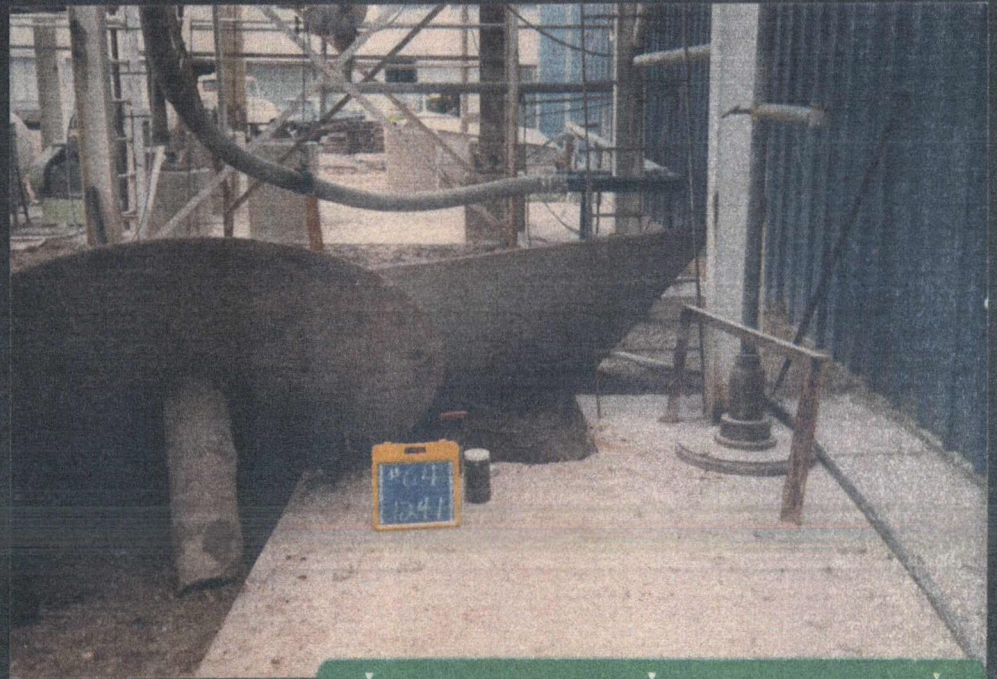
**Sample
Number**

Description

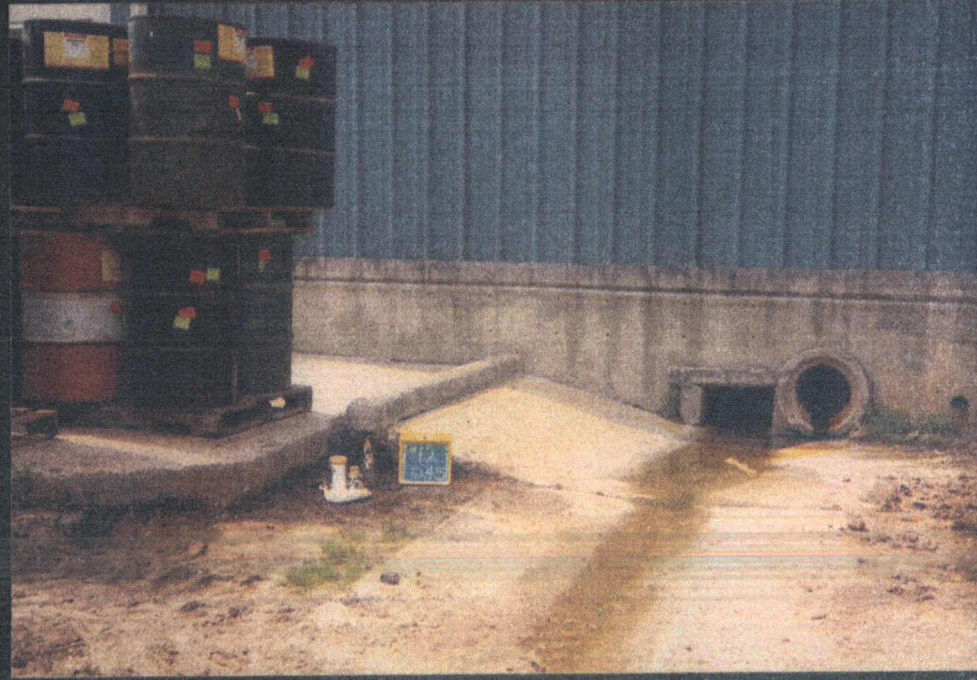
- | | |
|-----|---|
| 21. | (Duplicate of #20). |
| 22. | Sediment from a depression in north side property drainage ditch as it leaves the property 30 feet east of the northeast corner of the North Farm Supply Warehouse. This ditch drains possible spill areas. |
| 23. | Soil from an offsite uphill location 75 feet north of the northwest corner of the VMMW (control sample). |

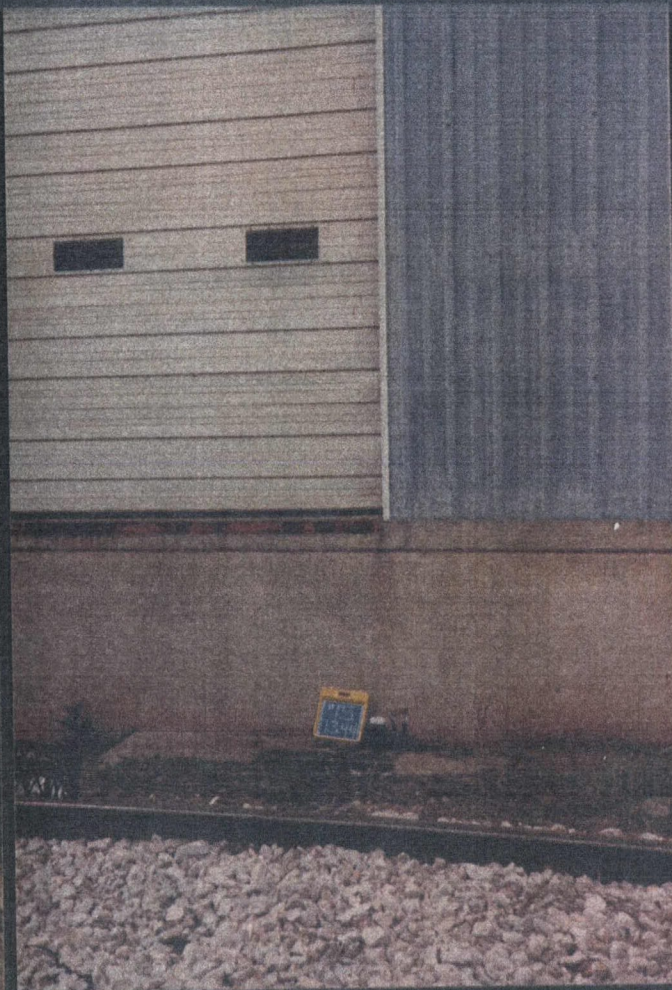
Appendix
C
SITE
PHOTOS









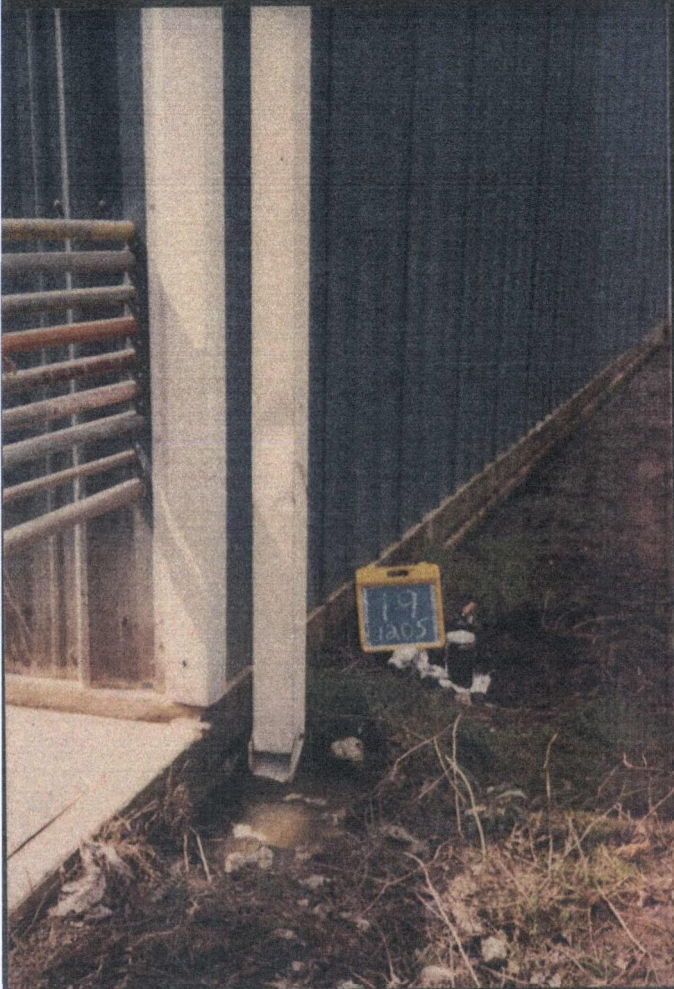


#14 - P/E sample
#16 - Blank

C. J. MARTIN CO.
SAMPLING LOCATIONS

Page 4 of 6

#18 - Blank to spike





C. J. MARTIN CO.
SAMPLING LOCATIONS

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Appendix D

CHAIN OF CUSTODY
RECORDS &
LABORATORY DOCUMENTS

Site: _____

HELP DIOXIN SHIPMENT RECORD

~~CASE~~ NO: 2635

BATCH NO: 01

Site Name: <u>C. J. Martin Co.</u>	Sampling Office: <u>TDWR</u>	Ship To: <u>US EPA ERL-DULUTH</u>
City & State: <u>Nacogdoches, TX</u>	City & State: <u>Austin, TX</u>	<u>6209 Congdon Blvd</u>
EPA Site No: <u></u>	Sampling Contact: <u>Dan MacLellan</u> (name)	Date Shipped: <u>3/20/85</u>
Latitude: <u>N. 31° 36' 15"</u>	Sampling Date: <u>3/19/85</u>	
Longitude: <u>W. 94° 39' 00"</u>	Data Turnaround:	
Tier: 1 2 <u>3</u> 4 5 6 7 (circle one)	15-Day <u> </u> 30-Day <u>✓</u>	

[illegible]

GOLD—Lab Copy

BATCH NO: 01

(box 1 of 6)

CLP DIOXIN SHIPMENT RECORD

Site Name: <u>CJ Martin Co.</u>	Sampling Office: <u>TDWR</u>	Ship To: <u>Laucks Testing Lab</u>
City & State: <u>Nacogdoches, TX</u>	City & State: <u>Austin, TX</u>	<u>940 S. Harney</u>
EPA Site No: _____	Sampling Contact: <u>Dan McClellan</u> (name)	Date Shipped: <u>3/20/85</u>
Latitude: <u>N. 31° 36' 15"</u>	Sampling Date: <u>3/19/85</u>	
Longitude: <u>W. 94° 39' 00"</u>	Data Turnaround: 15-Day _____ 30-Day <input checked="" type="checkbox"/>	
Tier: 1 2 <input checked="" type="radio"/> 4 5 6 7 (circle one)		

[illegible]

CASE NO: 4028	BATCH NO: 01
---------------	--------------

(Box 6 of 6)

Site Name: <u>C.J. Martin Co.</u>	Sampling Office: <u>TDWR</u>	Ship To: <u>Laucks Testing Lab</u>
City & State: <u>Nacogdoches, TX</u>	City & State: <u>Austin, TX</u>	<u>940 S. Harney</u> Date Shipped: <u>3/20/85</u>
EPA Site No: 	Sampling Contact: <u>Dan McClellan</u> (name)	
Latitude: <u>N. 31° 36' 15"</u>	Sampling Date: <u>3/19/85</u>	
Longitude: <u>W. 94° 39' 00"</u>	Data Turnaround: 15-Day _____ 30-Day <input checked="" type="checkbox"/>	
Tier: 1 2 <input checked="" type="radio"/> 4 5 6 7 (circle one)		

[illegible]

CHAIN OF CUSTODY RECORD

PROJ. NO. 2635		PROJECT NAME C.J. Martin Co.				NO. OF CON- TAINERS	237.8-TCDD REMARKS									
SAMPLERS: (Signature) Daniel S. McCall																
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION											
1a	3/19/85	1303		X	Ground water well (shallow) (old Hull House)	1	X								DF 014223	Tag 6-00354
1b	3/19/85	1303		X	Ground water well (shallow) Old Hull House	1	X								DF 014224	Tag 6-00353
Relinquished by: (Signature) Daniel S. McCall		Date / Time 3/20/85 9:00 AM		Received by: (Signature) FEDERAL EXPRESS (Tyler, Tx. office)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)						
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)						
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks Airbill # 768189704								

REMARKS

6- 8523

CHAIN-OF-CUSTODY RECORD

[illegible]

6-3997

First International Bldg 201 Elm St.
Dallas, Texas 75270

C-3998

CHAIN OF CUSTODY RECORD

PROJ. NO. 4028		PROJECT NAME C.J. Martin Co.				NO. OF CON- TAINERS	2,3,7,8-TCDD REMARKS									
SAMPLERS: (Signature) Daniel McCall																
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION											
14	3/19/85	1341		X	floor sweepings Warehouse	1	X							DF 0142-13	Tag 6-00343	
15	3/19/85	1343		X	2' E of subsurface drain thru manhole, E. side of N. Farm Supply	1	X							DF 0142-14	Tag 6-00344	
16	3/19/85	1355		X	75' N of NW corner of Vet Med Wkhs	1	X							DF 0142-15	Tag 6-00345	
17	3/19/85	1333		X	50' S (downstream) of pipe crossing on Bonita Creek, N.E. end of deposition Island	1	X							DF 0142-16	Tag 6-00346	
Relinquished by: (Signature) Dan McCall		Date / Time 3/20/85 4:00 AM		Received by: (Signature) Federal Express		Relinquished by: (Signature)		Date / Time		Received by: (Signature)						
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)						
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks: Airbill # 768189520 (Box 4 of 6)								

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

CHAIN OF CUSTODY RECORD

[illegible]

6-4000

REMARKS

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

6-8521

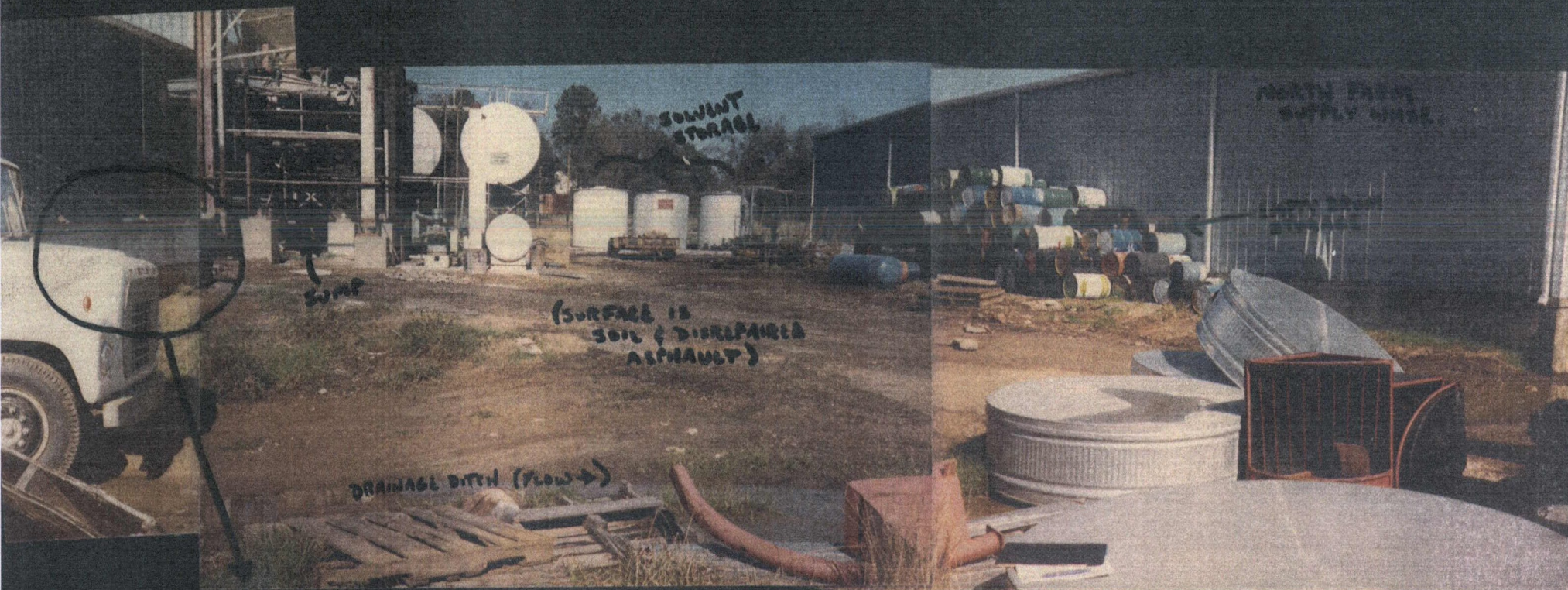
APPENDIX
E

SITE
PHOTOS

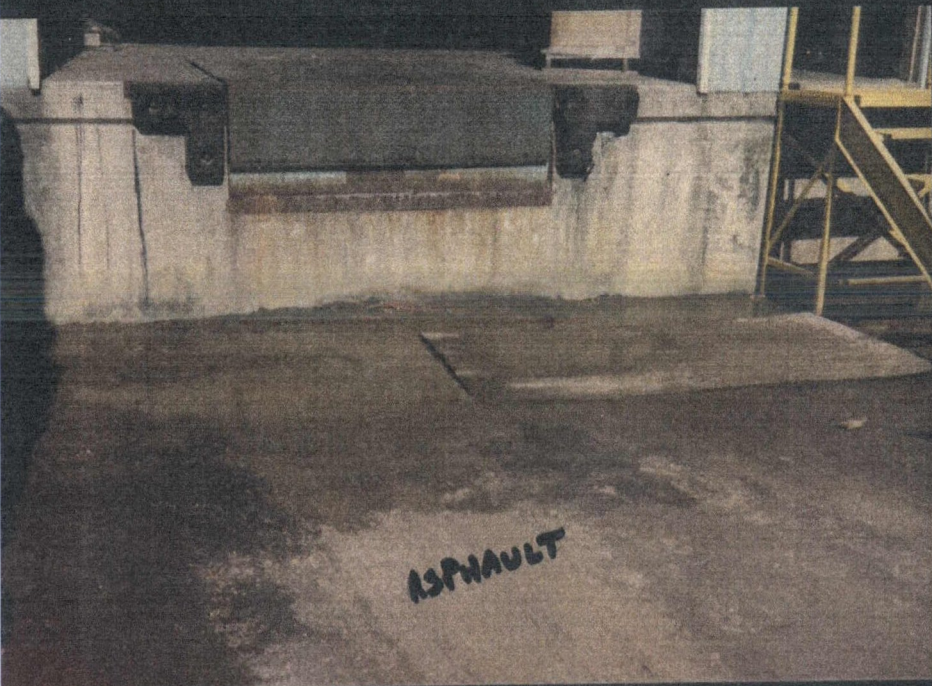


Operations portion of facility
(view toward NNE)

Empty drum storage (ground surface is
soil or disrepaired asphalt)



Uncovered area of operations
(view toward North)



North farm supply warehouse loading dock (view toward N)



West side of uncovered area of operations (view toward N)



Floor drain sump at northeast corner
of vet. med. mfg. whse. in uncovered
area of operations
(view toward NNW)

Empty drum storage (view toward SE)



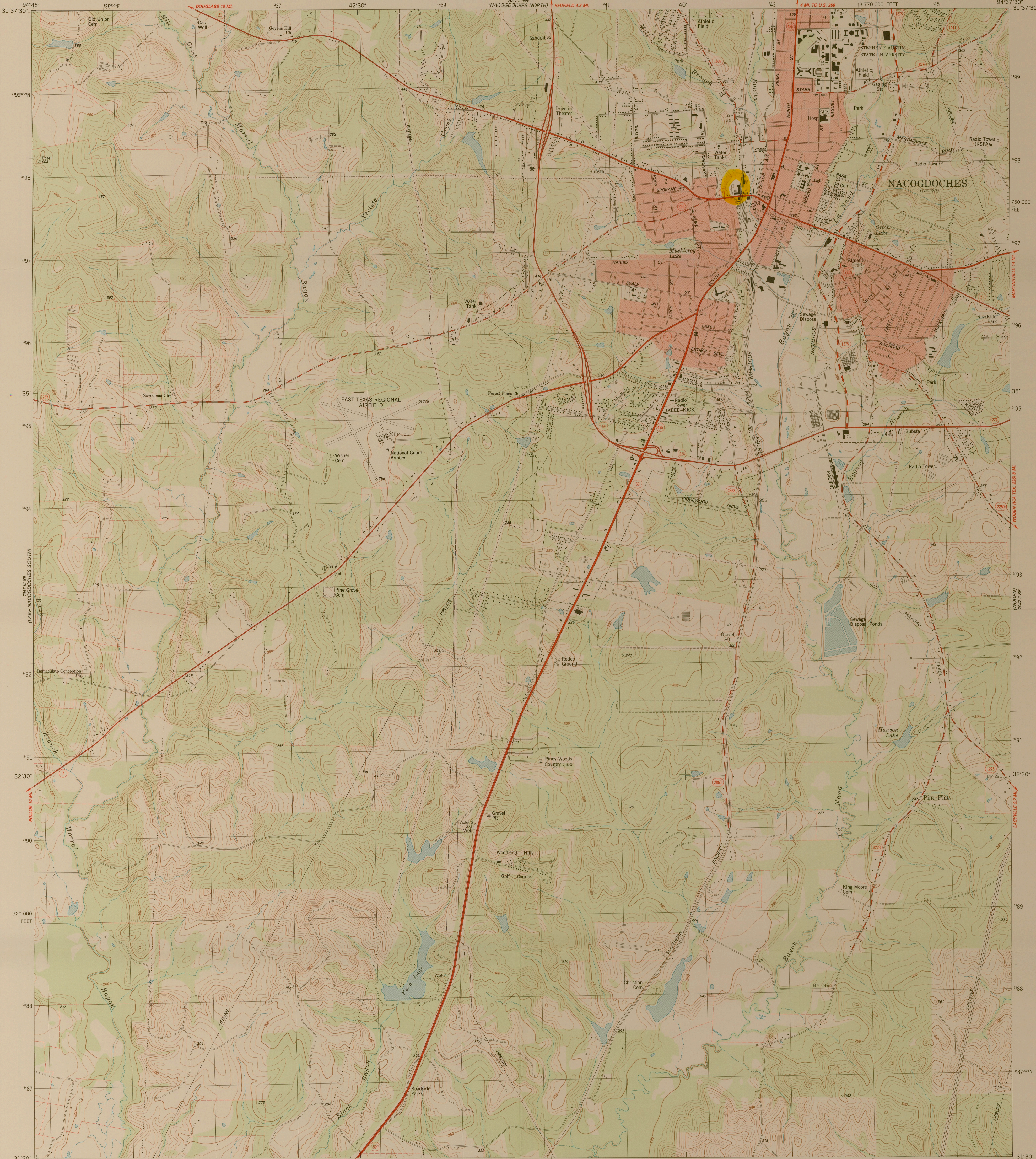
C. J. Martin Co.-Nacogdoches, TX
USGS 7.5 minute topographic map

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

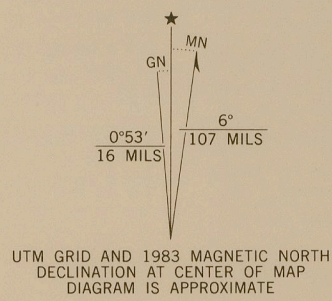
STATE OF TEXAS
TEXAS DEPARTMENT OF WATER RESOURCES

C. J. Martin Co.-Nacogdoches, TX
606 West Main Street

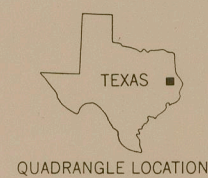
NACOGDOCHES SOUTH QUADRANGLE
TEXAS-NACOGDOCHES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW4 NACOGDOCHES 15' QUADRANGLE



Mapped, edited, and published by the Geological Survey
Control by USGS, NOS/NOAA, and DMA
Topography by photogrammetric methods from aerial photographs
taken 1976. Field checked 1977. Map edited 1983
Projection and 10,000-foot grid ticks: Texas
coordinate system, central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 15
1927 North American datum
To place on the predicted North American Datum 1983
move the projection lines 15 meters south and
23 meters east as shown by dashed corner ticks
Red tint indicates areas in which only landmark buildings are shown
Fine red dashed lines indicate selected fence lines



SCALE 1:24 000
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

NACOGDOCHES SOUTH, TEX.
SW4 NACOGDOCHES 15' QUADRANGLE
N3130-W9437.5/7.5

1983

DMA 7047 II SW-SERIES Y882

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

3194-312

APPENDIX G

Table 3-1

Tier 3 Facilities in Region 6 selected for
Sampling under the National Dioxin Study:

<u>Facility</u>	<u>Pesticides Formulated</u>
Mohawk Labs Division (National Chemsearch) 2730 Carl Road Irving, Texas	2,4,5-T
Research Products Co. 2423 Merrell Road Dallas, Texas	Ronnel
Bes-Tex Insecticides Co., Inc. 4652 South Chadbourne San Angelo, Texas	Silvex
✓ CJ Martin Co. 606 W. Maine Street Nacogdoches, Texas 75961	Ronnel (1977-82)
CSA, Limited 16210 FM 149 Houston, Texas 77090	Ronnel (1977-81)
Velsicol Chemical Corp. W. Port Arthur Road Beaumont, Texas 77705	2,4,5-T (1977-81) Tier 6 Chemicals: Dichloropropranolide (1977-81) Dimethylamine Dicamba (1981) Dicamba (1982)
Drew Chemical Corporation 61211 Alameda-Genoa Road Houston, Texas 77048	2,4,5-T

National Dioxin Study
Region 6
Fact Sheet

Date 7-27-84

Site Name: C.J. Martin Co. Tier 3

Location: P.O. Box 1089, 606 West Main St. City Nacogdoches

County/Parish Nacogdoches State Texas Zip 75961

Contacts: EPA Contact David Parrish Tel. (214/767-9777)

U.S. Congressman Charlie Wilson District (2)

U.S. Senators Lloyd Bentsen , John Tower

Governor Mark White Mayor A.L. Mangham (8-409/564-6191)

State Contact John Latchford (TDWR) Tel 512/475-5695

Sampling Contact Dan McClellan (TDWR) Tel 512/475-5516

Sampling Agency Texas Department of Water Resources.

Facility Description: Facility is a pesticide manufacturing plant which was
involved in the formulation of ronnel.

Facility Contact: Billy Sims Tel 409/564-3711

Rationale for Sampling: The facility was selected for sampling based on suggestion
by Region 6. The facility handled the pesticide ronnel, which is potentially
contaminated with TCDD.

Sampling Date: Planned _____ Actual _____

Results Available: Projected _____ Actual _____

Preliminary Findings: Date _____

Final Results: Date _____



C.J. Martin Company

Larry C.

MANUFACTURERS OF
LIVESTOCK AND POULTRY REMEDIES
HOUSEHOLD AND AGRICULTURAL INSECTICIDES

SUPERFUND BRANCH
606 WEST MAIN STREET

P. O. BOX 1089

NACOGDOCHES, TEXAS 75961

TELEPHONE 713-564-1413

April 26, 1984

Samuel L. Nott, Chief
Superfund Branch (6AW-S)
U.S. Environmental Protection Agency
1201 Elm Street
Dallas, Texas

Reference: Tier 3 Questionnaire

Dear Mr. Nott

Please find enclosed the information requested concerning
the formulation of products containing Ronnel.

C.J. Martin Co. request that the quantities produced remain
confidential under 40 CFR 2.203(b).

Sincerely,

Darrell J. Wilhoit

Darrell J. Wilhoit
Product Reg. Manager
C.J. Martin Co.

Dependable Products Since 1883



ATTACHMENT 1

Questionnaire # _____

1. Person to be contacted for information pertaining to this questionnaire:

<u>Name</u>	<u>Title</u>	<u>Telephone</u> (include area code)
<u>BILLY SIMS</u>	<u>Operations Manager</u>	<u>(409) 564-3711</u>

2. Name of Company: C.J. Martin Co.

3. Mailing Address: 606 West Main St.
Street
Nacogdoches, Texas 75961
City State Zip

Latitude/Longitude of Plant: 94° 40 min/ 31° 36 min
(If unknown, a full description of location for the purpose of plotting on U.S.G.S. maps.)

4. Name of Owner: C.J. Martin Co., Inc.

5. Address of Owner: 606 West Main
Street
Nacogdoches Texas 75961
City State Zip

6. If this plant was acquired or leased from another owner, identify date and lessor or former owner below.

Name _____
Month _____ Year _____

7. Is your company currently, or ever been, involved in formulating, blending, repackaging, or otherwise handling prior to distribution any pesticides containing the following compounds?

a) 2,4,5-T, salts & esters	Yes _____	No <u>X</u> _____
b) silvex, salts & esters	Yes _____	No <u>X</u> _____
c) erbon, salts & esters	Yes _____	No <u>X</u> _____
d) ronnel, salts & esters	Yes <u>X</u> _____	No _____
e) hexachlorophene, salts & esters	Yes _____	No <u>X</u> _____
f) isobac 20, salts & esters	Yes _____	No <u>X</u> _____
g) 2,4,5-TCP, salts & esters	Yes _____	No <u>X</u> _____

Note: Actual chemical names for these seven compounds are listed in Table 1.

IF "NO" FOR 7a THRU 7g, CHECK THE ITEM BELOW WHICH BEST DESCRIBES YOUR FACILITY, AND STOP HERE. DETACH AND RETURN PAGE 1 ONLY.

1) _____ Sales Office
2) _____ Warehouse
3) _____ Other (Identify) _____

IF "YES" TO ANY OF 7a THRU 7g PROCEED to the NEXT QUESTION.

8a. Provide year(s) for these activities. (If plant was previously owned by another company include these years if known.)

Compound*	Formulating	Blending	Repackaging	Other
a. 2,4,5-T				
b. silvex				
c. erbon				
d. ronnel	1969 - 1983			
e. hexachlorophene				
f. isobac 20				
g. 2,4,5-TCP				

*Include salts & esters.

8b. Provide total quantities (in pounds) for any of the seven compounds (listed below) used in the activities identified above in 8a.

Compound*	Formulating	Blending	Repackaging	Other
a. 2,4,5-T				
b. silvex				
c. erbon				
d. ronnel	(b) (4)			
e. hexachlorophene				
f. isobac 20				
g. 2,4,5-TCP				

*Include salts & esters.

9. Check the items that best describe the blending/formulating operations at the plant at the end of 1982.

Compound*	In Operation	Temporarily or Seasonally Inactive	Permanently Ceased (Month/Year)
a. 2,4,5-T			
b. silvex			
c. erbon			
d. ronnel		xx	
e. hexachlorophene			
f. isobac 20			
g. 2,4,5-TCP			

*Include salts & esters.

10. Plant age: 14 years

11. a. Does this plant generate waste (excluding sanitary waste)?
Yes _____ No x _____

IF NO, PLEASE STOP HERE AND RETURN PAGES 1 & 2 ONLY